

Aims of the Chemistry Laboratory

1. To give you the chance to observe first some of the substances and reactions discussed in the lectures and textbooks.
2. To learn some of the skills and techniques used by chemists in their work such as analytical work and chemical synthesis.
3. To offer you training in the careful and complete observation of certain phenomena and in the recording of data about them. Data gathering is followed by analysis of these data, determination of the significance of the data and then your decision of what you can conclude from your data. This is shown in the report written at the end of each experiment.

Safety Rules

1. Dress properly during lab activity:
 - A lab coat should be worn
 - Gloves should be used
 - Safety glasses or goggles must be used when certain procedures are being carried out
 - Long hair must be tied back
 - Dangling jewelry, and loose or baggy clothing must be secured.
 - Shoes must completely cover the foot
2. No drinking, eating or smoking is allowed in the lab.
3. Chemical contact should be washed immediately with copious amounts of water and to notify the instructor.
4. Avoid inhaling any fumes. When necessary, a substance may be smelt by Wafting (fanning) its vapor gently towards your face. Containers emitting noxious fumes should be placed in the hood (fume cupboard).
5. Whenever a reagent is discarded in the sink it should be flushed down the drain with copious amounts of water.

Noxious gases may evolve from residual reagents in the drain.
6. Never direct the open end of test tube toward yourself or anyone else.
7. Develop the habit of keeping your hands away from your mouth, nose and eyes. This will reduce the possibility of self-contamination.

8. Electrical equipment and connections should not be handled with wet hands, nor should electrical equipment be used after a liquid has been spilled on it.
9. Always switch off electrical apparatus at the mains when not on use. Switching off the apparatus by its own switch is not satisfactory.
10. If you see dangerous procedures taking place in the lab, please inform your instructor.
11. Hand washing is mandatory on leaving the laboratory.

General Instructions

1. It is the responsibility of each student to study the experiment before his lab time and to answer the questions of a pre-lab quiz.
2. Attendance at laboratory is compulsory for there is simply no other way to accomplish this part of the study program.
3. Read the label twice before taking anything from a bottle.
4. Do not lay the stopper of a bottle down. Impurities may be picked up and thus contaminates the solution when the stopper is returned.
5. Leave the reagent bottles at the side benches. Bring test tubes or beakers to the bench for transferring chemicals and carrying them to your bench.
6. Reagent bottles are provided with their own pipettes or droppers. Do not insert your own pipette or dropper into the reagent bottles.
7. Glassware are cleaned by washing carefully with a brush in water and detergent, then rinsed thoroughly with tap water and finally rinsed once again with a small quantity of distilled water. Then allow the glassware to dry. If you must use a piece of glassware while it is still wet, rinse it with the solution to be used.